

Claims". Please also add new claim 18 which is shown in the document entitled "Amended Claims".

IN THE ABSTRACT:

Please reformat the Abstract to read as one paragraph instead of three.

REMARKS

Entry and consideration of this Preliminary Amendment are respectfully requested prior to or concurrent with calculation of the filing fees. This Preliminary Amendment is being filed to correct improper multiple dependencies. As so amended, the claims are submitted as appearing in proper multiple dependent form.

Examination on the merits is awaited.

AUTHORIZATION

No additional fee is believed to be necessary.

The Commissioner is hereby authorized to charge any additional fees, which may be required for this amendment, or credit any overpayment to Deposit Account No. 02-4300, Order No. 33808.157.

In the event that an extension of time is required, or which may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby

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authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to Deposit Account No. 02-4300, Order No. 33808.157.

Respectfully submitted,
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MARKED UP COPY OF THE PREVIOUS CLAIMS

1. Agglomerated zeolitic adsorbents [based on] comprising zeolite X with an Si/Al ratio such that $1.15 < \text{Si/Al} \leq 1.5$, at least 90% of the exchangeable cationic sites of the zeolite X of which are occupied either by barium ions alone or by barium ions and potassium ions, it being possible for the exchangeable sites occupied by potassium to represent up to 1/3 of the exchangeable sites occupied by barium + potassium wherein [(the possible remainder generally being provided by alkali metal or alkaline earth metal ions other than barium)] and an inert binder, [characterized in that] the Dubinin volume of [the-]said adsorbents measured by nitrogen adsorption at 77°K after degassing under vacuum at 300°C for 16 h, is greater than or equal to

0.240 cm³/g.

2. Adsorbents according to Claim 1, wherein [whose] Dubinin volume is ,greater than or equal to 0.245 cm³/g.

3. Adsorbents according to Claim 1 [or 2], wherein the overall degree of exchange of which with regard to barium alone or with regard to barium + potassium is greater than or equal to 95%.

4. Adsorbents according to [Claims 1 to 3] Claim 1, wherein the loss on ignition of which, measured at 900°C, is between 4.0 and 7.7% [and preferably between 5.2 and 7.7%].

5. Process for producing the adsorbents as defined in [any one of claims 1 to 4] Claim 1, comprising the following stages:

- a) agglomerating zeolite X powder with a binder comprising at least 80% by weight of clay which can be converted to zeolite and shaping, then drying and calcining,
- b) zeolitization of the binder by the action of an alkaline solution,
- c) replacement of at least 90% of the exchangeable sites of the zeolite X by barium, followed by washing and drying the product thus treated,
- d) optionally replacement of at most 33% of the exchangeable sites of the zeolite X by potassium, followed by washing and drying the product thus treated,
- e) activation,

[it being possible for the] optionally exchange with potassium (stage d)[)] to be carried out before or after the exchange with barium (stage c)[)].

6. Process for producing adsorbents according to Claim 5, [characterized in that] wherein the activation in stage e) is a thermal activation carried out at a temperature of 200 to 300°C..

7. Process for producing adsorbents comprising a binder which can be converted to zeolite according to Claim 5, wherein [or 6, characterized] in that the alkaline solution of stage b)[]) has a concentration of at least 0.5M.

8. Process for the recovery of para-xylene from C₈ aromatic isomer fractions in the liquid phase by adsorption of the para-xylene by [means of] an adsorbent according to [any one of Claims 1 to 4] Claim 1 in the presence of a desorbent.

12. Process for the recovery of para-xylene from C₈ aromatic isomer fractions in the gas phase by adsorption of the para-xylene by [means of] an adsorbent according to [any one of Claims 1 to 4] Claim 1 in the presence of a desorbent.

13. Process for the recovery of para-xylene according to [any one of Claims 8 to 12] Claim 8, [in which] wherein process the desorbent is toluene or para-diethylbenzene.

14. Process for the separation of sugars employing an adsorbent according to [any one of Claims 1 to 4] Claim 1.

15. Process for the separation of polyhydric alcohols employing an adsorbent according to [any one of Claims 1 to 4] Claim 1.

16. Process for the separation of substituted toluene isomers, [such as] including nitrotoluene, diethyltoluene or toluenediamine, employing an adsorbent according to [any one of Claims 1 to 4] Claim 1.

17. Process for the separation of cresols employing an adsorbent according to [any one of Claims 1 to 4] Claim 1.